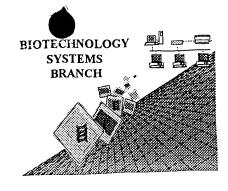
RAW SEQUENCE LISTING **ERROR REPORT**



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/039, 1978

RECEIVED

Source:

MAR 0 1 2001

Date Processed by STIC:

TECH CENTER 1600/2900

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS. PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2Kcompliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address: http://www.uspto.gov/web/offices/pac/checker



1647

RAW SEQUENCE LISTING PATENT APPLICATION: US/09/039,177B

DATE: 02/14/2001

TIME: 17:37:04

Does Not Comply
Corrected Diskette Needed

Input Set : A:\LUD-5539 SEQUENCE LISTING.txt
Output Set: N:\CRF3\02142001\1039177B.raw

SEQUENCE LISTING

```
3 (1) GENERAL INFORMATION:
             (i) APPLICANT: Kohei MIYAZONO; Takeshe IMAMURA; Peter DEN DIJKE
            (ii) TITLE OF INVENTION: ISOLATED ALK-1 PROTEIN, NUCLEIC ACIDS ENCODING
      7
                                      IT, AND USES THEREOF
      8
           (iii) NUMBER OF SEQUENCES: 46
     10
            (iv) CORRESPONDENCE ADDRESS:
     12
                  (A) ADDRESSEE: Fulbright & Jaworski L.L.P.
     13
     14
                  (B) STREET: 666 Fifth Avenue
     15
                  (C) CITY: New York City
                  (D) STATE: New York
     17
                  (E) COUNTRY: USA
     18
                  (F) ZIP: 10103
     20
             (V) COMPUTER READABLE FORM:
     21
                  (A) MEDIUM TYPE: Diskette, 3.25 inch, 1.44mb
                  (B) COMPUTER: IBM PS/2
     22
     23
                  (C) OPERATING SYSTEM: PC-DOS
                  (D) SOFTWARE: Wordperfect
     24
     26
            (vi) CURRENT APPLICATION DATA:
C--> 27
                  (A) APPLICATION NUMBER: US/09/039,177B
C--> 28
                  (B) FILING DATE: 13-Mar-1998
                  (C) CLASSIFICATION: 435
     29
     59
           (vii) PRIOR APPLICATION DATA:
                  (A) APPLICATION NUMBER: PCT/GB93/02367
     32
     33
                  (B) FILING DATE: November 17, 1993
                  (A) APPLICATION NUMBER: GB 9224057.1
                  (B) FILING DATE: November 17, 1992
     40
                  (A) APPLICATION NUMBER: GB 9304677.9
                  (B) FILING DATE: March 8, 1993
     41
     44
                  (A) APPLICATION NUMBER: GB 9304680.3
     45
                  (B) FILING DATE: March 8, 1993
                  (A) APPLICATION NUMBER: 9311047.6
     48
                  (B) FILING DATE: May 28, 1993
     49
                  (A) APPLICATION NUMBER: 9313763.6
     52
     53
                  (B) FILING DATE: July 2, 1993
     56
                  (A) APPLICATION NUMBER: 9136099.2
     57
                  (B) FILING DATE: August 3, 1993
                  (A) APPLICATION NUMBER: 321344.5
     60
    61
                  (B) FILING DATE: October 15, 1993
          (viii) ATTORNEY/AGENT INFORMATION:
    63
     64
                  (A) NAME: Mary Anne Schofield
    65
                  (B) REGISTRATION NUMBER: 36,669
                  (C) REFERENCE/DOCKET NUMBER: LUD 5539 CIP - JEL/MAS
     66
    68
            (ix) TELECOMMUNICATION INFORMATION:
    69
                  (A) TELEPHONE: (202) 662-0200
    70
                  (B) TELEFAX: (202) 662-4643
```

2/14/01

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/039,177B

DATE: 02/14/2001 TIME: 17:37:04

Input Set : A:\LUD-5539 SEQUENCE LISTING.txt
Output Set: N:\CRF3\02142001\I039177B.raw

ERRORED SEQUENCES

```
2641 (2) INFORMATION FOR SEQ ID NO: 32:
               (i) SEQUENCE CHARACTERISTICS:
     2643
                     (A) LENGTH: 175 amino acids
     2644
                     (B) TYPE: amino acid
                     (D) TOPOLOGY: linear
     2645
               (ii) MOLECULE TYPE: peptide
     2647
     2649
               (vi) ORIGINAL SOURCE:
                     (A) ORGANISM: Mouse
     2650
               (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:
     2652
     2654 Leu Leu Glu Val Lys Ala Arg Gly Arg Phe Gly Cys Val Trp Lys Ala
                                                 10
     2655
     2656 Gln Leu Leu Asn Glu Tyr Val Ala Val Lys Ile Phe Pro Ile Gln Asp
                                             25
                       20
     2658 Lys Gln Ser Trp Gln Asn Glu Tyr Glu Val Tyr Ser Leu Pro Gly Met
                                                                                   (sel den 4 on
Ever Summary Sheet)
misabgred amis
acid numbering
                                         40
     2660 Lys His Glu Asn Ile Leu Gln Phe Ile Gly Ala Glu Lys Arg Gly Thr
                                    55
                                                          60
     2662 Ser Val Asp Val Asp Leu Trp Leu Ile Thr Ala Phe His Glu Lys Gly
                                                      75
                                70
     2664 Ser Leu Ser Asp Phe Leu Lys Ala Asn Val Val Ser Trp Asn Glu Leu
                            85
                                                 90
     2666 Cys His Ile Ala Glu Thr Met Ala Arg Gly Leu Ala Tyr Leu His Glu
                                             105
     2667
                       100
     2668 Asp Ile Pro Gly Leu Lys Asp Gly His Lys Pro Ala Ile Ser His Arg
                   115
                                         120
                                                               125
     2670 Asp Ile Lys Ser Lys Asn Val Leu Leu Lys Asn Asn Leu Thr Ala Cys
               130
                                    135
     2672 Ile Ala Asp Phe Gly Leu Ala Leu Lys Phe Glu Ala Gly Lys Ser Ala
                                                      155
                                150
     2674 Gly Asp Thr His Gly Gln Val Gly Thr Arg Arg Tyr Met Ala Pro
                           165
                                                 170
E--> 2675
                                                                             165
                                                                                                   170
     2717 (2) INFORMATION FOR SEQ ID NO: 34:
                (i) SEQUENCE CHARACTERISTICS:
                     (A) LENGTH: 513 amino acids
     2719
                                   (B) TY7PE amino acid
     2720
                     (D) TOPOLOGY: linear
     2721
               (ii) MOLECULE TYPE: peptide
     2723
               (vi) ORIGINAL SOURCE:
     2725
     2726
                     (A) ORGANISM: MOUSE
2728 (XI) SEQUENCE DESCRIPTION: SEQ ID NO: 34:
2730 SEQ ID NO: 34 (XI) SEQUENCE DESCRIPTION: SEQ TO NO: 34;
E--> 2731 Mouse Actr II delete this
E--> 2733 Met Gly Ala Ala Ala Lys Leu Ala Phe Ala Val Phe Leu Ile Ser Cys
     2734
                                                 10
     2735 Ser Ser Gly Ala Ile Leu Gly Arg Ser Glu Thr Gln Glu Cys Leu Phe
                                             25
                       20
     2737 Phe Asn Ala Asn Trp Glu lys Asp Arg Thr Asn Gln Thr Gly Val Glu
```

Input Set : A:\LUD-5539 SEQUENCE LISTING.txt
Output Set: N:\CRF3\02142001\I039177B.raw

	_	_	_		_	_	_	_	_	_	•	_	_ •			
2739			Tyr	GLY	Asp	Lys		Lys	Arg	Arg	His		Phe	Ala	Thr	Trp
2740		50					55					60				
2741		Asn	Ile	Ser	Gly		Ile	Glu		Val		Gln	Gly	Cys	Trp	
2742				-		70			•		75					80
2743	Asp	Asp	Ile	Asn	Cys	Tyr	Asp	Arg	Thr	Asp	Cys	Val	Glu	Lys	Lys	Asp
2744					85					90					95	
2745	Ser	Pro	Glu	Val	Tyr	Phe	Cys	Cys	Cys	Glu	Gly	Asn	Met	Cys	Asn	Glu
2746				100					105					110		
2747	Lys	Phe	Ser	Tyr	Phe	Pro	Glu	Met	Glu	Val	Thr	Gln	Pro	Thr	Ser	Asn
2748			115					120					125			
2749	Pro	Val	Thr	Pro	Lys	Pro	Pro	Tyr	Tyr	Asn	Ile	Leu	Leu	Tyr	Ser	Leu
2750		130			-		135	-	-			140		-		
2751	Val	Pro	Leu	Met	Leu	Ile	Ala	Gly	Ile	Val	Ile	Cys	Ala	Phe	Trp	Val
	145					150		_			155	. 4			•	160
2753	Tvr	Ara	His	His	Lvs	Met	Ala	Tvr	Pro	Pro	Val	Leu	Val	Pro	Thr	Gln
2754	- 4				165					170				_	175	-
2755	Asp	Pro	Glv	Pro		Pro	Pro	Ser	Pro		Leu	Glv	Leu	Lvs		Leu
2756	···or		<u>-</u> -	180					185			0-1		190		
2757	Gln	Leu	T.e.11		Val	Lws	Δla	Ara		Ara	Phe	Glv	Cvs		Tro	Lvs
27:58	0111	nea	195	Ora	·ul	$D_I J$	2114	200	0+1	111 9	1 110	011	205	141	5	210
2759	Δla	Gln		T.em	Agn	Glu	Tur		Δla	Va l	T.vg	T1_		Pro	Tle	Gln
2760	mu	210	шса	псц	11011	OIU	215	va.	<i>I</i> II.u	vai	Б ұ 5	220	1110	110	110	0111
2761	Aen		Gln	Ser	Ψrn.	Gln		Glu	Tur	Glu	Va 1		Sar	T.e.ii	Pro	Glv
2762		шуз	0111	561	II P	230	ASII	Olu	1 Y 1	OIU	235	- J -	JCI	псц	110	240
2763		Lare	Нie	Glu	λen		T.011	Gln	Dha	Πla		λlа	Glu	Laze	λνα	
2764	Mec	цуз	1113	Giu	245	116	пец	GIII	rne	250	GLY	AIG	GIU	пуз	255	GIÀ
2765	Thr	Sor	W=1	Nen		λen	Lou	mrn	Lon		Thr	λla	Dho	uic		Tuc
2766	1111	261	vai	260	val	wab	пеа	пр	265	116	1111	мта	FIIE	270	Giu	пуз
2767	C1.7	Cor	T 011		7.00	Dho	T 011	Trra		λan	1/21	Val	Cor		7 an	C1.,
	GIY	261	275	ser	ASP	Phe	Leu		Ala	ASII	val	val	285	пр	ASII	GIU
2768	T	G		T1.	71-	C1	m L	280	71-	7	C1	T	-	m	T	TT
2769	Leu		HIS	rre	Ата	GIU		Met	Ala	Arg	GTĀ		Ата	туг	Leu	HIS
2770	~ 3	290	T 1		a 1	-	295		~ 1		-	300		- 1		** ' -
2771		Asp	11e	Pro	GIY		Lys	Asp	GIY	HIS		Pro	Ala	rre	Ser	
2772		3	-1 .	.		310		77. 7	-	- .	315			.	m ì	320
2773	Arg	Asp	11e	гĀг		Lys	Asn	vaı	Leu		гăг	Asn	Asn	Leu		Ala
2774	_		- 1		325	_,	_		_	330	_,		- 1	1	335	_
2775	Cys	lle	Ala		Phe	GLY	Leu	Ala		Lys	Phe	Glu	Ala		Lys	Ser
2776				340					345					350	_	
2777	Ala	Gly		Thr	His	Gly	Gln		Gly	Thr	Arg	Arg		Met	Ala	Pro
2778			355					360					365			
2779	Glu		Leu	Glu	Gly	Ala		Asn	Phe	Gln	Arg		Ala	Phe	Leu	Arg
2780		370					375					380				
2781		Asp	Met	Tyr	Ala		Gly	Leu	Val	Leu		Glu	Leu	Ala	Ser	
2782						390	-				395					400
2783	Cys	Thr	Ala	Ala	Asp	Gly	Pro	Val	Asp	Glu	Tyr	Met	Leu	Pro	Phe	Glu
2784					405					410					415	
2785	Glu	Glu	Ile	Gly	Gln	His	Pro	Ser	Leu	Glu	Asp	Met	Gln	Glu	Val	Val
2786				420					425					430		
2787	Val	His	Lys	Lys	Lys	Arg	Pro	Val	Leu	Arg	Asp	Tyr	Trp	Gln	Lys	His
							**									

Input Set : A:\LUD-5539 SEQUENCE LISTING.txt
Output Set: N:\CRF3\02142001\I039177B.raw

```
435
                                    440
    2789 Ala Gly Met Ala Met Leu Cys Glu Thr Ile Glu Glu Cys Trp Asp His
          450
                  455
                                                  460
     2791 Asp Ala Glu Ala Arg Leu Ser Ala Gly Cys Val Gly Glu Arg Ile Thr
                                475
                  470
    2792 465
    2793 Gln Met Gln Arg Leu Thr Asn Ile Ile Thr Thr Glu Asp Ile Val Thr
                       485
                                          490
                                                             495
     2795 Val Val Thr Met Val Thr Asn Val Asp Phe Pro Pro Lys Glu Ser Ser
                    500
                                       505
    2796
    2797 Leu
     2800 (2) INFORMATION FOR SEQ ID NO: 35:
            (i) SEQUENCE CHARACTERISTICS:
    2801
    2802
                   (A) LENGTH: 536 amino acids
    2803
                   (B) TYPE: amino acid
    2804
                  (D) TOPOLOGY: linear
            (ii) MOLECULE TYPE: peptide
    2806
            (vi) ORIGINAL SOURCE:
    2808
                  (A) ORGANISM: MOUSE
            (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:
E--> 2813 ACTR- IIB delote
E--> 2815 Met Thr Ala Pro Trp Ala Ala Leu Ala Leu Leu Trp Gly Ser Leu Cys
    2816
                                           10
    2818 Ala Gly Ser Gly Arg Gly Glu Ala Glu Thr Arg Glu Cys Ile Tyr Tyr
    2819
                    20
                                       25
    2820 Asn Ala Asn Trp Glu Leu Glu Arg Thr Asn Gln Ser Gly Leu Glu Arg
    2821
    2822 Cys Glu Gly Glu Gln Asp Lys Arg Leu His Cys Tyr Ala Ser Trp Arg
    2823 50
                                55
    2824 Asn Ser Ser Gly Thr Ile Glu Leu Val Lys Lys Gly Cys Trp Leu Asp
    2825 65
                                               75
    2826 Asp Phe Asn Cys Tyr Asp Arg Gln Glu Cys Val Ala Thr Glu Glu Asn
                        85
                                           90
    2828 Pro Gln Val Tyr Phe Cys Cys Cys Glu Gly Asn Phe Cys Asn Glu Arg
                    100
                                       105
    2830 Phe Thr His Leu Pro Glu Pro Gly Gly Pro Glu Val Thr Tyr Glu Pro
                                   120
                                                       125
    2832 Pro Pro Thr Ala Pro Thr Leu Leu Thr Val Leu Ala Tyr Ser Leu Leu
    2833 130
                               135
                                                  140
    2834 Pro Ile Gly Gly Leu Ser Leu Ile Val Leu Leu Ala Phe Trp Met Tyr
    2835 145
                           150
                                              155
    2836 Arg His Arg Lys Pro Pro Tyr Gly His Val Asp Ile His Glu Val Arg
                        165
                                           170
    2838 Gln Cys Gln Arg Trp Ala Gly Arg Arg Asp Gly Cys Ala Asp Ser Phe
                    180
                                       185
    2840 Lys Pro Leu Pro Phe Gln Asp Pro Gly Pro Pro Pro Ser Pro Leu
    2841 195
                                   200
                                                      205
    2842 Val Gly Leu Lys Pro Leu Gln Leu Leu Glu Ile Lys Ala Arg Gly Arg
    2843 210 215
                                                220
    2844 Phe Gly Cys Val Trp Lys Ala Gln Leu Met Asn Asp Phe Val Ala Val
```

Input Set : A:\LUD-5539 SEQUENCE LISTING.txt
Output Set: N:\CRF3\02142001\I039177B.raw

```
2845 225
                            230
                                               235
     2846 Lys Ile Phe Pro Leu Gln Asp Lys Gln Ser Trp Gln Ser Glu Arg Glu
           245
                                        250
     2848 Ile Phe Ser Thr Pro Gly Met Lys His Glu Asn Leu Leu Gln Phe Ile
     2849 260
                                       265
                                                           270
     2850 Ala Ala Glu Lys Arg Gly Ser Asn Leu Glu Val Glu Leu Trp Leu Ile
     2851 275
                                    280
     2852 Thr Ala Phe His Asp Lys Gly Ser Leu Thr Asp Tyr Leu Lys Gly Asn
          290
                                295
                                                   300
     2854 Ile Ile Thr Trp Asn Glu Leu Cys His Val Ala Glu Thr Met Ser Arg
     2855 305
                           310
                                               315
    2856 Gly Leu Ser Tyr Leu His Glu Asp Val Pro Trp Cys Arg Gly Glu Gly
                       325
                                           330
                                                               335
    2858 His Lys Pro Ser Ile Ala His Arg Asp Phe Lys Ser Lys Asn Val Leu
                   340
                                       345
    2860 Leu Lys Ser Asp Leu Thr Ala Val Leu Ala Asp Phe Gly Leu Ala Val
                                    360
    2862 Arg Phe Glu Pro Gly Lys Pro Pro Gly Asp Thr His Gly Gln Val Gly
                               375
                                                  380
    2864 Thr Arg Arg Tyr Met Ala Pro Glu Val Leu Glu Gly Ala Ile Asn Phe
                         390
                                              395
    2865 385
    2866 Gln Arg Asp Ala Phe Leu Arg Ile Asp Met Tyr Ala Met Gly Leu Val
                        405
                                           410
                                                               415
    2868 Leu Trp Glu Leu Val Ser Arg Cys Lys Ala Ala Asp Gly Pro Val Asp
                    420
                                        425
                                                           430
    2870 Glu Tyr Met Leu Pro Phe Glu Glu Glu Ile Gly Gln His Pro Ser Leu
                 435
                                    440
                                                       445
    2872 Glu Glu Leu Gln Glu Val Val His Lys Lys Met Arg Pro Thr Ile
    2873 450
                                455
                                                   460
    2874 Lys Asp His Trp Leu Lys His Pro Gly Leu Ala Gln Leu Cys Val Thr
                            470
                                               475
                                                                        muselyred hos.
    2876 Ile Glu Glu Cys Trp Asp His Asp Ala Glu Ala Arg Leu Ser Ala Gly
                        485
                                           490
    2878 Cys Val Glu Glu Arg Val Ser Leu Ile Arg Arg Ser Val Asn Gly Thr
                    500
                                       505
                                                          510
    2880 Thr Ser Asp Cys Leu Val Ser Leu Val Thr Ser Val Thr Asn Val Asp
                                  520
           515
                                                      S25 51-5
    2882 Leu Leu Pro Lys Glu Ser Ser Ile
2883 530
E--> 2883 530
                                               535
    3075 (2) INFORMATION FOR SEQ ID NO: 38:
    3076
            (i) SEQUENCE CHARACTERISTICS:
    3077
                  (A) LENGTH: 6 amino acids
    3078
                  (B) TYPE: amino acid
                  (D) TOPOLOGY: linear
    3079
    3081
             (ii) MOLECULE TYPE: peptide
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:
    3083
    3085 Asp Leu Lys Pro Glu Asn
```

E--> 3086

5

3092 (2) INFORMATION FOR SEQ ID NO: 39:

Input Set : A:\LUD-5539 SEQUENCE LISTING.txt
Output Set: N:\CRF3\02142001\I039177B.raw

```
3093
               (i) SEQUENCE CHARACTERISTICS:
     3094
                     (A) LENGTH: 6 amino acids
     3095
                     (B) TYPE: amino acid
     3096
                     (D) TOPOLOGY: linear
     3098
               (ii) MOLECULE TYPE: peptide
     3100
               (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:
     3102 Asp Leu Ala Ala Arg Asn
E--> 3103
     3106 (2) INFORMATION FOR SEQ ID NO: 40:
     3107
               (i) SEQUENCE CHARACTERISTICS:
     3108
                     (A) LENGTH: 6 amino acids
                     (B) TYPE: amino acid
     3109
                                                              musalgred hos.
     3110
                     (D) TOPOLOGY: linear
     3112
              (ii) MOLECULE TYPE: peptide
     3114
              (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:
     3116 Asp Ile Lys Ser Lys Asn
     3120 (2) INFORMATION FOR SEQ ID NO: 41:
     3121
               (i) SEQUENCE CHARACTERISTICS:
     3122
                     (A) LENGTH: 6 amino acids
     3123
                     (B) TYPE: amino acid
     3124
                     (D) TOPOLOGY: linear
     3126
              (ii) MOLECULE TYPE: peptide
              (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:
     3128
     3130 Asp Phe Lys Ser Lys Asn 3131 \mathsf{S}
E--> 3131
     3134 (2) INFORMATION FOR SEQ ID NO: 42:
               (i) SEQUENCE CHARACTERISTICS:
     3135
     3136
                     (A) LENGTH: 6 amino acids
     3137
                     (B) TYPE: amino acid
     3138
                    (D) TOPOLOGY: linear
     3140
              (ii) MOLECULE TYPE: peptide
              (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:
     3144 Asp Leu Lys Ser Ser Asn
E--> 3145
     3148 (2) INFORMATION FOR SEQ ID NO: 43:
     3149
               (i) SEQUENCE CHARACTERISTICS:
     3150
                    (A) LENGTH: 6 amino acids
     3151
                    (B) TYPE: amino acid
     3152
                    (D) TOPOLOGY: linear
     3154
              (ii) MOLECULE TYPE: peptide
     3156
              (ix) FEATURE:
     3157
                    (D) OTHER INFORMATION: First Xaa is Thr or Ser;
     3158 fourth Xaa is Tyr or Phe; Each other Xaa
     3159 may be any amino acid
              (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:
     3161
W--> 3163 Gly Xaa Xaa Xaa Xaa Xaa
E--> 3164
     3167 (2) INFORMATION FOR SEQ ID NO: 44:
```

Input Set : A:\LUD-5539 SEQUENCE LISTING.txt
Output Set: N:\CRF3\02142001\1039177B.raw

```
(i) SEQUENCE CHARACTERISTICS:
     3168
     3169
                     (A) LENGTH: 6 amino acids
     3170
                     (B) TYPE: amino acid
     3171
                     (D) TOPOLOGY: linear
     3173
               (ii) MOLECULE TYPE: peptide
     3175
               (ix) FEATURE:
     3176
                     (D) OTHER INFORMATION: (Fisrt) Xaa is any amino acid;
     3177 second Xaa is Ile or Val;
     3178 third Xaa is Lys or Arg;
     3179 fourth Xaa is Thr or Met.
     3181
              (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:
W--> 3183 Xaa Pro Xaa Xaa Tro Xaa
E--> 3184
                         .5
     3187 (2) INFORMATION FOR SEQ ID NO: 45:
               (i) SEQUENCE CHARACTERISTICS:
     3188
     3189
                     (A) LENGTH: 6 amino acids
     3190
                     (B) TYPE: amino acid
     3191
                     (D) TOPOLOGY: linear
     3193
               (ii) MOLECULE TYPE: peptide
     3195
               (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:
     3197 Gly Thr Arg Arg Tyr Met 3198 {\cal S}
E--> 3198
     3200 (2) INFORMATION FOR SEQ ID NO: 46:
                    (A) LENGTH: amino acids mandatory usperse reeded
(B) TYPE: amino acid
               (i) SEQUENCE CHARACTERISTICS:
     3201
     3202
     3203
                     (D) TOPOLOGY: linear
     3204
     3206
              (ii) MOLECULE TYPE: peptide
              (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:
     3208
     3210 Gly Thr Ala Arg Tyr Met
                             misaligned nos.
E--> 3211
```

Ill neft page-more enou

(2) INFORMATION FOR SEQ ID NO: 37:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 669 amino acids
 (B) TY7PE) amino acid
 (D) TOPOLOGY: linear

 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(vi) ORIGINAL SOURCE:

(A) ORGANISM: C. elegans

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

SEQ ID NO: 37

C. elegans Daf-1:

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/039,177B

DATE: 02/14/2001
TIME: 17:37:05

Input Set : A:\LUD-5539 SEQUENCE LISTING.txt
Output Set: N:\CRF3\02142001\1039177B.raw

```
L:27 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:28 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:85 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:331 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:602 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:887 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:1143 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:1398 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:1640 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:1897 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:2148 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:2391 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:2409 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:2427 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:2445 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:2463 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:2481 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:2499 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]
L:2518 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:2675 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:32
L:0 M:200 E: Mandatory Header Field missing, Seq 34, [(B) TYPE:] of (2)(i)
L:2731 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:2731 M:330 E: (2) Invalid Amino Acid Designator, 2
L:2733 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:0
L:2797 M:203 E: No. of Seq. differs, LENGTH:Input:513 Found:515 SEQ:34
L:2813 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:2813 M:330 E: (2) Invalid Amino Acid Designator, 2
L:2815 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:0
M:332 Repeated in SeqNo=35
L:2883 M:203 E: No. of Seq. differs, LENGTH:Input:536 Found:538 SEQ:35
L:0 M:200 E: Mandatory Header Field missing, Seq 37, [(B) TYPE:] of (2)(i)
L:3086 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:38
L:3103 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:39
L:3117 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:40
L:3131 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:41
L:3145 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:42
L:3163~M:341~W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:3164 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:43
L:3183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44
L:3184 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:44
L:3198 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:45
L:3211 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:46
L:3211 M:203 E: No. of Seq. differs, LENGTH:Input:0 Found:6 SEQ:46
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Raw Sequence Listing Error Summary

	ERROR DETECTED	SUGGESTED CORRECTION SERIAL NUMBER: U9/U39/17/D
۸۳۲۸	I. NEW DITLES CASES. D	LEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE
1	Wrapped Nucleics	The number/lext at the end of each line "wrapped" down to the next line.
·	. VII appearitation	This may occur if your file was retrieved in a word processor after creating it.
_		Please adjust your right margin to .3, as this will prevent "wrapping". RECEIVED
2	Wrapped Aminos	The amino acid number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. MAR 0 1 2001
		Please adjust your right margin to 3 as this will prevent "Wrapping".
		TECH CENTER 1600/2900
3	Incorrect Line Length	The rules require that a line not exceed 72 characters in length. This includes spaces.
4 🗸	Misaligned Amino Acid	The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs
	Numbering	between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
5	Non-ASCII	This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
		Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
6	Variable Length	Sequence(s) contain n's or Xaa's which represented more than one residue.
	•	As per the rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and
		indicate in the (ix) feature section that some may be missing.
7	Patentin ver. 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
		sequence(s) Normally, Patentln would automatically generate this section from the
		previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section
		to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223>
		sections for Artificial or Unknown sequences.
8	Skipped Sequences	Sequence(s) missing. If intentional, please use the following format for each skipped sequence:
	(OLD RULES)	(2) INFORMATION FOR SEQ ID NO:X:
		(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
		(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
		This sequence is intentionally skipped
		Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
9	Skipped Sequences	Sequence(s) missing. If intentional, please use the following format for each skipped sequence.
	(NEW RULES)	<210> sequence id number
		\$400> sequence id number 000
0	Use of n's or Xaa's	Use of n's and/or Xaa's have been detected in the Sequence Listing.
	(NEW RULES)	Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
		In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
1	Use of <213>Organism	Sequence(s) are missing this mandatory field or its response.
	(NEW RULES)	
_		
	Use of <220>Feature	Sequence(s) are missing the <220>Feature and associated headings.
	(NEW RULES)	Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown" ——— Please explain source of genetic material in <220> to <223> section.
,	•	(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules
		(
3	Patentin ver. 2.0 "bug"	Please do not use "Copy to Disk" function of Patentln version 2.0. This causes a corrupted
	Demonstration .	file, TeSalting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
		Instead, please use "File Manager" or any other means to copy file to floppy disk.